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10/667,033	09/22/2003	Serge Morcau	9680.236US01	7869

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EXAMINER	
SPAHN, GAY	
ART UNIT	**PAPER NUMBER**
3635	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/667,033	MOREAU, SERGE	
	Examiner	Art Unit	
	Gay Ann Spahn	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9/22/03 & 3/16/06* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to because:

(1) Fig. 14, if reference numeral "11'" is on the structure it represents, then it should have a line underneath it according to 37 C.F.R. § 1.84(q), sixth full sentence after heading "Lead lines.".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

(1) reference numeral "18" in Fig. 1; and

(2) reference numeral "31" in Figs. 7, 8, and 10.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claim 11 is objected to because of the following informalities:

(1) claim 11, line 7, it is believed that the word "transversally" should be changed to --transversely-- for proper grammar.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, line 2, the recitation of "iron angle" is vague, indefinite, and confusing as not being understood. Is Applicant attempting to claim an "angle iron" as the term in commonly used in the art?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by MCMANUS '499 (U.S. Patent No. 3,392,499).

As to claim 1, MCMANUS '499 discloses a framing system (Figs. 1 and 2) for a composite concrete floor, the framing system (Figs. 1 and 2) comprising:

horizontally extending primary framing members (23) supporting secondary framing members (10) across the primary framing members (23), said primary and secondary framing members (23, 10) being made of a metallic structural material (see col. 1, lines 16-20, wherein it discusses steel joists and supporting steel beams (i.e., girder)), each of said secondary framing members (10) having two opposite ends provided with a shear shoe (16, 19), wherein said shear shoe (16, 19) is fixed to said primary framing members (23) by means of a structural joint (welds 22) sufficient to provide a shear connection between said concrete floor (25) and said primary framing members (23).

As to claim 2, MCMANUS '499 discloses the framing system of claim 1 as discussed above, and MCMANUS '499 also discloses that said shear shoes (16) of each secondary framing member (10) comprise an iron angle having: one horizontally extending face (19) fixed by means of said structural joint (22) to a horizontal face (top

flange of girder 23) of a respective one of said primary framing members (23), and one vertically extending face (16) fixed (at welds 17) to said secondary framing members (11, 12 of joist 12).

As to claim 3, MCMANUS '499 discloses the framing system of claim 2 as discussed above, and MCMANUS '499 also discloses that said structural joint (welds 22) is selected from the group consisting of a weld joint and a bolt joint.

As to claim 4, MCMANUS '499 discloses the framing system of claim 3 as discussed above, and MCMANUS '499 also discloses that said structural joint (weld 22) is a weld joint.

As to claim 5, MCMANUS '499 discloses the framing system of claim 1 as discussed above, and MCMANUS '499 also discloses that said secondary framing members (10) have continuous shear connection (via shear plate 16 and bar 20) to the concrete floor (25).

As to claim 8, MCMANUS '499 discloses the framing system of claim 1 as discussed above, and MCMANUS '499 also discloses that said primary framing member (23) is a steel beam (see col. 1, lines 16-20).

As to claim 9, MCMANUS '499 discloses the framing system of claim 8 as discussed above, and MCMANUS '499 also discloses that said secondary framing members (10) are open-web steel joint joists (col. 2, line 42).

As to claim 10, MCMANUS '499 discloses the framing system of claim 1 as discussed above, and MCMANUS '499 also discloses that said metallic structural material is steel (col. 1, lines 16-20).

As to claim 11, MCMANUS '499 discloses a method of erecting a framing system (Figs. 1 and 2) for a composite concrete floor comprising the steps of:

providing primary and secondary framing members (23, 10) made of a metallic structural material (col. 1, lines 16-20), each of said secondary framing members (10) having two opposite ends provided with a shoe (16, 19);

placing said primary framing members (23) in parallel relation (see col. 1, lines 29-37, wherein it discusses "ordinary construction" such that it is inherent that the primary framing members 23 would be placed in parallel relation to one other);

placing said secondary framing members (10) transversally (see Fig. 1 and col. 1, lines 29-37, wherein it discusses "ordinary construction" such that it is inherent that the secondary framing members 10 would be placed in transverse relation to the primary framing members 23) between said primary framing members (23) with said shoes (16, 19) bearing on the primary framing members (23); and

fixing said shoes (16, 19) to said primary framing members (23) with a structural joint (welds 22) sufficient to provide a shear connection for said primary framing members (23).

As to claim 12, MCMANUS '499 discloses the method of claim 11 as discussed above, and MCMANUS '499 also discloses that said step of fixing consists of welding (at 22) said shoes (16, 19) to the primary framing members (10).

As to claim 13, MCMANUS '499 discloses the method of claim 11 as discussed above, and MCMANUS '499 also discloses that said secondary framing members (10) have a continuous shear connector (via sheer plate 16 and bar 22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over MCMANUS '499 (U.S. Patent No. 3,392,499) in view of TAFT (U.S. Patent No. 4,432,178).

As to claim 7, MCMANUS '499 discloses the framing system of claim 1 as discussed above.

MCMANUS '499 fails to explicitly disclose that said primary framing member is a truss.

TAFT discloses a framing system for a composite concrete floor, wherein the framing system includes a primary framing member (12) which is a truss.

It would have been obvious to one or ordinary skill in the art at the time the invention was made to modify the framing system of MCMANUS '499 by making the primary framing member be a truss as taught by TAFT in order to make the framing system lighter (i.e., the web of the a truss of TAFT only consists of diagonal braces instead of the solid web of the I-beam of MCMANUS '499).

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over TAFT (U.S. Patent No. 4,432,178) in view of MCMANUS '499 (U.S. Patent No. 3,392,499).

As to claim 1, TAFT discloses a framing system (10 in Fig. 1) for a composite concrete floor, the framing system (10) comprising:

horizontally extending primary framing members (12) supporting secondary framing members (14) across the primary framing members (12), said primary and secondary framing members (12, 14) being made of a metallic structural material (see Abstract, line 1), each of said secondary framing members (14) having two opposite ends provided with a shear shoe (46).

TAFT fails to explicitly disclose that the shear shoe is fixed to said primary framing members by means of a structural joint sufficient to provide a shear connection between said concrete floor and said primary framing members.

MCMANUS '499 discloses a framing system (Figs. 1 and 2) having a shear shoe (16, 19) which is fixed to said primary framing members (23) by means of a structural joint (weld 22) sufficient to provide a shear connection between said concrete floor (25) and said primary framing members (23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the framing system of TAFT by fixing the shear shoe to the primary framing members by means of a structural joint sufficient to provide a shear connection between said concrete floor and said primary framing members because such connection is old and well known in the art at taught by MCMANUS '499 in order

provide more structural ridigity and support to the framing system than if the joists were just made to bear on the primary framing members.

As to claim 2, TAFT in view of MCMANUS '499 discloses the framing system of claim 1 as discussed above, and MCMANUS '499 also discloses that said shear shoes (16, 19) of each secondary framing member (10) comprise an iron angle having: one horizontally extending face (19) fixed by means of said structural joint (weld 22) to a horizontal face (top flange of girder 23) of a respective one of said primary framing members (23), and one vertically extending face (16) fixed (at welds 17) to said secondary framing members (angle irons 11, 12).

As to claim 3, TAFT in view of MCMANUS '499 discloses the framing system of claim 2 as discussed above, and MCMANUS '499 also discloses that said structural joint (weld 22) is selected from the group consisting of a weld joint and a bolt joint.

As to claim 4, TAFT in view of MCMANUS '499 discloses the framing system of claim 3 as discussed above, and MCMANUS '499 also discloses that said structural joint (weld 22) is a weld joint.

As to claim 5, TAFT in view of MCMANUS '499 discloses the framing system of claim 1 as discussed above, and MCMANUS '499 also discloses that said secondary framing members (10) have continuous shear connection to the concrete floor (25).

As to claim 6, TAFT in view of MCMANUS '499 discloses the framing system of claim 5 as discussed above, and TAFT also discloses that said secondary framing members (14) have a top chord (40) embedded in the concrete floor (not shown in the embodiment of Figs. 1 and 2, but would be similar to concrete floor shown in Fig. 3 as

embedding top chord of joists 61), thereby providing said shear connection to the concrete floor.

As to claim 7, TAFT in view of MCMANUS '499 discloses the framing system of claim 1 as discussed above, and TAFT also discloses that said primary framing member (12) is a truss (see col. 2, lines 55-56).

As to claim 8, TAFT in view of MCMANUS '499 discloses the framing system of claim 1 as discussed above, and MCMANUS '499 also discloses that said primary framing member (23) is a steel beam (see col. 1, lines 16-38).

As to claim 9, TAFT in view of MCMANUS '499 discloses the framing system of claim 8 as discussed above, and TAFT also discloses that said secondary framing members (14) are open-web steel joint joists (see Fig. 1).

As to claim 10, TAFT in view of MCMANUS '499 discloses the framing system of claim 1 as discussed above, and TAFT also discloses that said metallic structural material is steel (see Abstract, line 1, wherein the "steel primary framing member" is discussed and col. 1, lines 6-7, wherein the "open web steel framing" is discussed).

As to claim 11, TAFT discloses a method of erecting a framing system (10 in Fig. 1) for a composite concrete floor comprising the steps of:

providing primary and secondary framing members (12, 14) made of a metallic structural material (s ee Abstract, line 1, wherein the "steel primary framing member" is discussed and col. 1, lines 6-7, wherein the "open web steel framing" is discussed), each of said secondary framing members (14) having two opposite ends provided with a shoe (46);

placing said primary framing members (12) in parallel relation (see Fig. 1);

placing said secondary framing members (14) transversally between said primary framing members (12) with said shoes (46) bearing on the primary framing members (12),

TAFT fails to explicitly disclose the step of fixing said shoes to said primary framing members with a structural joint sufficient to provide a shear connection for said primary framing members.

MCMANUS '499 discloses a method of erecting a framing system including the step of fixing said shoes (16, 19) to said primary framing members (23) with a structural joint (weld 22) sufficient to provide a shear connection for said primary framing members (23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the framing system of TAFT by fixing the shear shoe to the primary framing members by means of a structural joint sufficient to provide a shear connection between said concrete floor and said primary framing members because such connection is old and well-known in the art at taught by MCMANUS '499 in order provide more structural ridigity and support to the framing system than if the joists were just made to bear on the primary framing members.

As to claim 12, TAFT in view of MCMANUS '499 discloses the method of claim 11 as discussed above, and MCMANUS '499 also discloses that said step of fixing consists of welding (at weld 22) said shoes (16, 19) to the primary framing members (23).

As to claim 13, TAFT in view of MCMANUS '499 discloses the method of claim 11 as discussed above, and MCMANUS '499 also discloses that said secondary framing members (10) have a continuous shear connector (via shear plate 16 and bar 20).

As to claim 14, TAFT in view of MCMANUS '499 discloses the method of claim 13 as discussed above, and TAFT also discloses that said shear connector is a continuous top chord (40) adapted to be embedded in said concrete floor (not shown in the embodiment of Figs. 1 and 2, but would be similar to concrete floor shown in Fig. 3 as embedding top chord of joists 61).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Various configurations of shoes connected to primary framing members are disclosed in: U.S. Patent No. 4,683,698 to Churchman (see Figs. 3 and 5); U.S. Patent No. 3,527,007 to McManus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Thursday, 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Naoko N. Slack can be reached on (571)-272-6848. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GAS

Gay Ann Spahn, Patent Examiner
September 28, 2006

Robert Canfield
Primary Examiner